CW/HW#101: Inscribed/Circumscribed Polygons Applications

Geometry

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| Objective | YWBAT use the given dimensions (radius or dimensions of the inscribed or circumscribed shape) to solve for area and perimeter. | |
| 1. Circle C is inscribed in square ABCD. Find the area of the square.   ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%2012.19.00%20PM | | 1. Square ABCD is circumscribed by circle C.  *C* has a radius of 3 cm. 2. Draw a picture. 3. Find the area of square ABCD. |
| 1. Square HIJK is inscribed in circle C. The diagonal of HIJK is 12 inches. Draw a picture and find the area and circumference of the circle. | | 1. The radius of the circle below is 2 cm and FG = 3 cm. Find the area of rectangle DEFG. |
| 1. *HIJKL* is a regular pentagon such that all side lengths are 12 in. The radius of the circumscribed circle is 10 in. Find the area of *HIJKL*. | | 1. CHALLENGE QUESTION A regular decagon is inscribed in a circle with radius 4 units. 2. ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%201.13.45%20PMFind the side lengths of the regular decagon. 3. Find the area of the decagon. 4. Find the area of the circle. 5. Find the ratio of the area of the circle to the area of the decagon. |
| 1. Square *ABCD* is circumscribed by circle C.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%2012.20.48%20PM a. Find the area of the square.   b. Find the area of the circle.      c. Write the ratio of the area of the circle to the area of the square. | | 1. Square *LMNO* is inscribed in circle *P*. The sides of *LMNO* are 5 in.   a. Draw a picture.     b. Find the perimeter of the square *LMNO*.    c. Find the circumference of circle *P*.     d. Find the ratio of the the perimeter of *LMNO* to the circumference of circle *P*. |

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| Objective | YWBAT use properties of isosceles triangles to find angles measures of inscribed shapes. | |
| 1. *ABCDE* is a regular pentagon inscribed in circle *F*.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%2012.50.30%20PM 2. Find m∠AFE 3. Find m∠AFG 4. Find m∠GAF | | 1. *WXYZ* is a square inscribed in circle *P*.   ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%2012.55.35%20PM a. Find m∠XPY  b. Find m∠XPQ  c. Find m∠PXQ |
| 1. Find the given angle measure for the regular octagon shown.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%201.25.09%20PM | | 1. m∠GJH 2. m∠GJK 3. m∠KGJ 4. m∠EJH |

CW/HW#101: Insc./Circ. Polygons Applications

Honors Geometry

Due: Thursday, March 24th

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

FAILURE TO WRITE IN COMPELTE SENTENCES OR SHOW ALL WORK WILL RESULT IN LASALLE

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| 1. Find the area of the circle.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%202.11.32%20PM | 1. *C* is the circumscribed circle for square WXYZ. *C* has a radius of 3 cm. Find the area of square WXYZ. |
| 1. *ABCDE* is a regular pentagon inscribed in circle *F*. Find the following angles.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%2012.50.30%20PM 2. *m∠BFC* 3. *m∠EAB* | 1. Find the area of the shaded region.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%202.20.26%20PM |
| 1. Find the area of the shaded region.   ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%202.26.54%20PM | 6.*ABCDEFG* is a regular heptagon. Find the following angles.  ../../../../../Desktop/Screen%20Shot%202016-03-13%20at%202.31.53%20PM  a. m∠*CJD*  b. m∠*CJK*  c. m∠*KCJ* |